

ABSTRACT

A method of evaluating one or more test compounds to identify test compounds that modulate binding of natural or artificial regulatory factors to corresponding single-, double-, or triple-stranded nucleic acid binding sites is described. The method utilizes an isolated nucleic acid target that defines at least one known or putative binding site for a regulatory factor. The nucleic acid target has conjugated or covalently bonded thereto, at a point proximate to, but not within, the binding site: (i) an anchor moiety; (ii) a linker moiety bonded to the anchor moiety; and (iii) a test compound bonded to the linker moiety. To evaluate the test compound, the nucleic acid target of step is then contacted to a reagent mixture comprising one or more natural or artificial regulatory factors specific for the binding site defined in the nucleic acid target. It is then determined, by any number of known methods, whether binding of the regulatory factor to the binding site defined in the nucleic acid target was modulated by presence of the test compound.